

Bellwork: 12/18/12

Solve each of the following equations by FACTORING:

1) $x^2 - 4x = 12$

$$\begin{array}{r} -12-12 \\ \hline x^2 - 4x - 12 = 0 \end{array}$$

$$(x+2)(x-6) = 0$$

✓ $x+2=0$ $x-6=0$
 $x=-2$ $x=6$

2) $7x^2 + 22x + 3 = 0$

$$(7x^2 + 21x + 1x + 3) = 0$$

$$7x(x+3) + 1(x+3)$$

$$(x+3)(7x+1) = 0$$

$x+3=0$ $7x+1=0$
 $x=-3$ $x=-\frac{1}{7}$

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$$2x^2 + 6x = -4$$

$$2x^2 + 6x + 4 = 0$$

$$2(x^2 + 3x + 2) = 0$$

$$2(x+2)(x+1) = 0$$

$x+2=0$ $x+1=0$
 $x=-2$ $x=-1$

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(15)

$$x^2 - 4x = 0$$

$$(x)(x-4) = 0$$

$$x = 0$$

$$x - 4 = 0$$
$$x = 4$$

(14)

$$3x^2 = 16x + 12$$

$$3x^2 - 16x - 12 = 0$$

$$(3x^2 - 18x)(+2x - 12) = 0$$

$$3x(x-6) + 2(x-6) = 0$$

$$(3x+2)(x-6) = 0$$

$x = \frac{-2}{3}$
w/2

$$3x + 2 = 0$$
$$\frac{-2}{3} \div 3$$
$$\frac{-2}{9}$$

$$x - 6 = 0$$
$$x = 6$$

$$\begin{array}{r|l} 36 & \\ \hline 1 & 36 \\ 2 & 18 \\ 3 & 12 \\ 4 & 9 \\ 6 & 6 \end{array}$$

$$6) \quad 6x^2 - 15x - 6 = 1 - 4x$$

$$\begin{array}{r} \\ \\ \hline 6x^2 - 15x - 6 = -4x \\ + 4x + 4x \end{array}$$

$$6x^2 - 11x - 7 = 0$$

$$(6x^2 - 14x + 3x - 7) = 0$$

$$2x(3x - 7) + 1(3x - 7) = 0$$

$$(3x - 7)(2x + 1) = 0$$

$$3x - 7 = 0$$

$$x = \frac{7}{3}$$

$$2x + 1 = 0$$

$$x = -\frac{1}{2}$$

$$\begin{array}{r|l} 42 & \\ \hline 1 & 42 \\ 2 & 21 \\ \hline 3 & 14 \\ 6 & 7 \end{array}$$

Review packet

#1 - #9 - pick ANY 4

#10 - #21 - pick ANY 6

#22 - #30 - pick ANY 3

#31 - #39 - pick ANY 3

#1 - #10 - pick ANY 4

#11 - #22 pick ANY 5

Factoring project - Wed. 12/19

Review - Wed. 12/19

Quiz - Wed. 12/19

